SAW FLUXES

FL164B

Classification	ISO 14174-S A FB 1 55 AC H5 AWS A5.17 / A5.23: F7A8-EM12K (S2) / F8A8/F7P8-EH12K (S3Si) / F8A4/F7P4-EA2-A2 (S2Mo) F7A10/P10-ENi1-Ni1 (S2Ni1) / F8A10/F7P10-ENi2-Ni2 (S2Ni2) / F8A10/P10-ENi3-Ni3 (S2Ni3) F8A8/P8-ENi5-Ni5 (S3Ni1Mo0,2) / F9A8/P8-EF3-F3 (S3Ni1Mo) F11A8/P8~EM4-M4 (S3Ni2½CrMo) F8P0-EB2R-B2R (S2Cr1Mo) / F8P0-EB3R-B3R (S1Cr2Mo1)

Fluoride-basic flux with high basicity index and low impurities level for high performance application. As a result of low oxygen level in the weld metal high toughness at low temperature and uniform mechanical properties are achieved. Particularly suitable for critical applications of thick section materials when there is demand on high impact toughness values at very low temp (-60° C or below). Generally used on fine grain structural steels, high tensile fine grain steel such as S690QL1, N-A-XTRA 70, boiler and vessel steels.

FL165B

Classification	ISO 14174: S A FB 1 55 AC H5 (EN 760: SA FB 1 55 AC) AWS A5.17 / A5.23: F7A8/P8-EM12(K) / F7A8-EH10K / F 8 A 8 / F7P8-EH12K / F8A4/F7A4-EA2-A2 F7A10/P10-ENi1-Ni1 / F8A10/F7P10-ENi2-Ni2 / F8A15/P15-ENi3-Ni3 / F8A8-ENi5-Ni5 F9A8/P8-EF3-F3 / F9P8-EM2mod.-M2 / F11A8/P8-EM4 mod.-M4 / F8P0-EB2R-B2R F8P0-EB3R-B3R

A fluoride-based flux with high basicity and low impurity levels. Consistent mechanical properties with high low-temperature toughness. FL165B is suitable for DC and AC welding using single-wire and tandem processes. Suitable for structural steels with Ys > 420 MPa, offshore applications with Ys > 460 MPa, as well as BS 4360 Grade 50 D and S355 2G3. It is also used for fine-grained steels such as S690QL1, N-A-XTRA 70 and steels for boilers and PRESSURE vessels.

FL182B

Classification	ISO 14174-S A AR 1 76 AC H5 AWS A5.17 / AWS A5.23: F7AZ-EL12 (S1) / F7AZ-EM12K (S2) / F7A0-EM12K (S2Si) AWS A5.23: F8A0-EA2-A2 (S2Mo) / F8PZ-EB2-B2 (S2Cr1Mo)

Designed for all SAW processes and welding of ordinary carbon-manganese and low alloy steel with yield strength up to 355 N/mm² in combination with wire grades S1, S2, S2Mo and S2Cr1Mo. The flux is suitable for production of membrane wall panels for power plants, beam fabrication, general construction and LPG manufacturing at high travel speed.

FL188F

Classification	ISO 14174-S A AB 1 67 AC H5 AWS A5.17 / A5.23: F7A0-EL12 (S1) / F7A4/P4-EM12K (S2) / F7A4/P4-EM12K (S2Si) / F8A5/F7P4-EH12K (S3Si) F8A2/P2-EA2-A2 (S2Mo) / F8A2/F7P2-EG-G (SH2) F8A5-ENi5-Ni5 (S3Ni1Mo0,2) F9A4-EF3-F3 (S3Ni1Mo)

Agglomerated semi-basic flux suitable for carbon alloy steel welding in single and multi-pass technique and in single or multi-wire application. The weld metal produced meets good mechanical properties and high toughness at low temperature. Good slag removal in fillet and grove welds. The main applications of this flux are: boilers works, pipes, ship-buildings, structural steelworks, tanks, pressure vessels, offshore applications, etc.

FL190B

Classification	ISO 14174-S A AB 1 67 AC H5 AWS A5.17 / A5.23: F7A2-EL12 (S1) / F7A4/F6P4-EM12K (S2) / F7A6/P6-EM12K (S2Si) / F8A6/F7P6-EH12K (S3Si) F8A4-EG-G (SH2) / F8A4/P4-EA2-A2 (S2Mo) / F9A4/P4-EA4-A3 (S3Mo) F7A10/P10-ENi1-Ni1 (S2Ni1) / F8A10/F7P10-ENi2-Ni2 (S2Ni2) / F9A5/P5-EF3-F3 (S3Ni1Mo) F8P4-EB2-B2 (S2Cr1Mo)

Agglomerated semi-basic flux suitable for fine-grained carbon and low alloy steels welding in single or multi-pass technique, in single or multi-wire applications. Combined with appropriate wire types it reaches excellent mechanical features and high toughness at low temperature. The most suited applications are pipe production, structural steelworks, boiler works, ship-building and pipe-lines in steel grade up to API- 5L X70.

FL193B

Classification	ISO 14174-S A AB 1 66 AC H5 AWS A5.17 / A5.23: F7A2-EM12K (S2) / F7A2-EM12K (S2Si) / F8A4/F7P4-EH12K (S3Si) / F8A2/P2-EA2-A2 (S2Mo) F8A2/P2-EA4-A4 (S3Mo) / F9A0-EA3K-A3 (S4MoSi) F9A2-EF3-F3 (S3Ni1Mo) F6TA0-EM12K (S2) / F7TA2-EM12K (S3Si) / F9TA2-EA2 (S2Mo) / F9TA2-EF3 (S3Ni1Mo) F8TA6-EG (S3TiB) / F9TA6-EA2TiB (S3MoTiB)

Agglomerated semi-basic flux for joint welding high quality steel pipes for oil and gas. Suitable for single and multi-wire (up to 5 wires) in two-run technique. As a result of low hydrogen content (<5 ml/100 g in the weld metal) and oxygen levels as well as uniform metallurgical behavior, constant mechanical properties and very good toughness at low temperatures, especially in combination with wires containing titanium and boron, are obtained.

FL200B

Classification	ISO 14174 – S A CS 3 CCrMo AC

An agglomerated, active SAW flux of the calcium-silicate type (alloy composition: C, Cr, Mo), designed for hard surfacing and welded joints using low-alloy wires. FL200B exhibits consistent chemical reactions, typical of alloyed fluxes.

Wire	Heat treatment	Hardness
Layer 1	S2 As welded	270 HB
Layer 2	S2 As welded	330 HB
Layer 3	S2 As welded	340 HB